

What Is Claimed Is:

1. A data transmission path including a device for checking the data integrity of data transmitted from the sender side to the receiver side of the data transmission path, in a motor vehicle in particular, characterized by
 - a first data modification device on the sender side and a second data modification device on the receiver side (5, 6) which each have the same transmission function effecting the modification of input data (E1, E2) into output data (A1, A2) and are connected to the data transmission path (3),
 - a comparator (7) on the receiver side, which is connected to the data transmission path (3) and the second data modification device (6), which compares the output data (A1, A2) supplied by the first data modification device (5) and the second data modification device (6) via the data transmission path (3) and which activates an enabling device (8) when the output data (A1, A2) are identical,
 - the transmission of input data (E1), generated on the sender side, to the first data modification device (5) and transmission of identical input data (E2) to the second data modification device (6) via the data transmission path (3).
2. The data transmission path as recited in Claim 1, wherein the input data are sent essentially simultaneously in the direction of the first and the second data modification devices (5, 6).
3. The data transmission path as recited in one of the preceding claims, wherein the data transmission path (3) has at least one communication channel (11), in particular a CAN (Controller Area Network) communication channel.
4. The data transmission path as recited in Claim 3, wherein the output data (A1) generated by the first data modification device (5) and the input data (E2) supplied to the second data modification device (6) are transmitted via a common communication channel (11) of the data transmission path (3).
5. The data transmission path as recited in one of the preceding claims, wherein the enabling device (8) enables the operation of an actuator (9), a brake (10) in particular.

6. A method for checking the data integrity of data transmitted from the sender side to the receiver side of a data transmission path, in particular in a motor vehicle, wherein
- input data (E1) are modified into first output data (A1) by a first data modification device (5), having a transmission function, and supplied to a comparator (7) via the data transmission path (3),
 - identical input data (E2) are supplied to a second data modification device (6), having the same transmission function, via the data transmission path (3), are modified into second output data (A2) and supplied to the comparator (7), and
 - the comparator (7) outputs an activation signal when the first and the second output data (A1, A2) are identical.